

WHAT IS CLAIMED IS:

1. A communication apparatus connected to an ISDN which comprises:

5 decision means for, when call connection fails, deciding a reason for the failure in connection;

setting means for setting a timer value used to wait for a predetermined time when the decision means decides a mismatch in communication mode; and

10 control means adapted for waiting for the predetermined time in response to the decision of a mismatch in communication mode made by the decision means, and then switching the communication mode to another communication mode to try the call connection again.

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2. The communication apparatus according to claim 1, wherein

20 the setting means sets, differently from the timer value, a second timer value used to wait for a second predetermined time when the decision means decides that a partner is busy; and

25 the control means is adapted to wait for the second predetermined time when the decision means decides that the partner is busy, and then tries the call connection again without switching the communication mode.

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3. A communication apparatus connected to an ISDN, having a plurality of communication protocols in a B channel, said apparatus including D-channel control means for controlling a call in a D channel, and a
5 plurality of B-channel control means for conducting protective controls corresponding to a plurality of communication modes in the B channel, said apparatus comprising:

10 decision means for, when call connection by the D-channel control means fails, deciding whether or not call connection should be tried by the D-channel control means again after switching a communication mode in the B channel to another communication mode;

15 timer control means for waiting for a predetermined time when the decision means decides that the call connection should be tried by the D-channel control means again after the switching to such another communication mode in the B channel; and

20 control means adapted for switching to said another communication mode in the B channel after waiting for a predetermined time by the timer control means to try the call connection again by the D-channel control means.

25 4. The communication control apparatus according to claim 3, further comprising setting means for setting a time for waiting by the timer control means,

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10      setting a timer value used to wait for a
      predetermined time when the decision step decides a
      mismatch in communication mode; and

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the setting step sets, differently from the timer value, a second timer value used to wait for a second predetermined time when the decision step decides that a partner is busy; and

the control step is adapted to wait for the second predetermined time when the decision step decides that

the partner is busy, and then tries the call connection again without switching the communication mode.

5 7. A communication method in an ISDN, having a plurality of communication protocols in a B channel, said method including a D-channel control step for controlling a call in a D channel, and a B-channel control step for conducting control corresponding to each of a plurality of communication modes in the B
10 channel, said method comprising the steps of:

when call connection by the D-channel control means fails, deciding whether or not call connection should be tried in the D-channel control step again after switching a communication mode in the B channel
15 to another communication mode;

controlling a timer for waiting for a predetermined time when the decision step decides that the call connection should be tried in the D-channel control step again after the switching to such another
20 communication mode in the B channel; and

controlling adapted for switching to said another communication mode in the B channel after waiting for a predetermined time in the timer control step to try the call connection again by the D-channel control means.

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8. The communication method according to claim 7, further comprising the step of setting a time for

waiting in the timer control step, when the communication mode is switched to another communication mode in the B channel and it is decided that the call connection should be tried again in the D-channel control step.

9. A storage medium to store a computer program for the implementation of a communication method in an ISDN, comprising the step of:

10 when call connection fails, deciding a reason for the failure in connection;

setting a timer value used to wait for a predetermined time when the decision step decides a mismatch in communication mode; and

15 controlling adapted for waiting for the predetermined time in response to the decision of a mismatch in communication mode made in the decision step, and then switching the communication mode to another communication mode to try the call connection again.

10. The storage medium according to claim 9, wherein

25 the setting step sets, differently from the timer value, a second timer value used to wait for a second predetermined time when the decision step decides that a partner is busy; and

the control step is adapted to wait for the second predetermined time when the decision step decides that the partner is busy, and then tries the call connection again without switching the communication mode.

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11. A storage medium to store a computer program for the implementation of a communication method in an ISDN, having a plurality of communication protocols in a B channel, said method including a D-channel control step for controlling a call in a D channel, and a B-channel control step for conducting control corresponding to each of a plurality of communication modes in the B channel, said method comprising the steps of:

15 when call connection by the D-channel control means fails, deciding whether or not call connection should be tried in the D-channel control step again after switching a communication mode in the B channel to another communication mode;

20 controlling a timer for waiting for a predetermined time when the decision step decides that the call connection should be tried in the D-channel control step again after the switching to such another communication mode in the B channel; and

25 controlling adapted for switching to said another communication mode in the B channel after waiting for a predetermined time in the timer control step to try the

12. The storage medium according to claim 11, further comprising the step of setting a time for waiting in the timer control step, when the communication mode is switched to another communication mode in the B channel and it is decided that the call connection should be tried again in the D-channel control step.

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